ABSTRACT OF THE DISCLOSURE

A dielectric recording / reproducing apparatus is provided with: a probe for applying an electric field to a dielectric material; a return electrode for returning the high frequency electric field for data reproduction; an inductor placed between the probe and the return electrode; an oscillator which oscillates at a resonance frequency determined according to the inductor and a capacitance formed in the dielectric material just under the probe; a switch for switching circuit connections depending on whether data recording is performed and data reproducing is performed; a recording signal input device for converting data to be recorded to generate a recording signal; a direct current voltage generation device for generating a direct current bias voltage to be applied to the dielectric material; a frequency-amplitude demodulator for demodulating an oscillation signal of the oscillator having the frequency that is changed depending on the capacitance owned by the dielectric material just under the probe; and a signal detector for detecting data from the demodulated signal.

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